UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,675	10/31/2001	Thomas D. Hanan	K35A1023	5322

35219	7590	03/22/2006

WESTERN DIGITAL TECHNOLOGIES, INC.
ATTN: SANDRA GENUA
20511 LAKE FOREST DR.
E-118G
LAKE FOREST, CA 92630

EXAMINER
POPHAM, JEFFREY D

ART UNIT	PAPER NUMBER
2137	

DATE MAILED: 03/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 February 2006*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *31 October 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

Remarks

Claims 1-6 are pending.

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

2/27/2006 has been entered.

Response to Arguments

2.   Applicant's arguments, see Remarks, filed 2/27/2006, with respect to the

rejection(s) of claim(s) 1-6 under 35 U.S.C. 102(e) and 103(a) have been fully

considered and are persuasive.

At the bottom of Page 5 (of 7), applicant argues that "The Mankefors publication

teaches that this special location needs to be searched and found, because the hard

drive does not receive a notification as to where this special location might be" referring

to the flags of Mankefors. Taking applicant's interpretation of Mankefors, the claims can

still be rejected, but in a different way than before. Since the location of the flags is not

given to the disk drive from the host, and the special location needs to be searched and

found, the disk drive controller must search and find the flags. Since the disk drive

controller of Mankefors has this functionality of being able to search for the special
location of these flags, the flags are not interpreted as being the mailbox file anymore.
In the current rejections using Mankefors, the mailbox file is the software that is being
installed and used on the computer unit. The host tells the disk drive to install the
software. The disk drive gives the host the location of the installation, as seen in
paragraph 36. Then the host sends the hardware information to the server in order to
obtain an access key. Once the host gets the access key, it sends both that and the
non-recurrent key obtained from the user to the disk drive. Now, the disk drive will
search for and install the flags in the appropriate places. On subsequent access
attempts, the disk drive will perform this search (executable function performed by the
disk drive, characterized by contents of the mailbox file/software) in order to obtain the
flags, as applicant suggests.

3.   Upon further consideration, a new ground(s) of rejection is also made with Lettvin
(U.S. Patent 5,559,960), Lettvin in view of Torrubia-Saez (U.S. Patent 6,966,002), and
Torrubia-Saez in view of Assaf (U.S. Patent 6,728,830).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that
form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public
use or on sale in this country, more than one year prior to the date of application for patent in the United
States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   Claims 1, 4, and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Mankefors (U.S. Patent Application Publication 2002/0010863).

Regarding Claim 1,

Mankefors discloses, in a computer system including a host computer, a disk drive host interface and a disk drive having a disk storage medium with a first range of disk drive host interface addressable locations, a method for installing a mailbox file associated with the disk storage medium, the installation method comprising the steps of:

Obtaining a disk drive access key from an access key server, the access key being generated by the access key server as a function of an identifying characteristic of the disk drive (Page 4, Paragraph 36; and Page 6, Paragraph 50);

Creating a mailbox file (the software being installed) in the first range of addressable locations using the access key obtained from the access key server (Page 4, Paragraph 36; and Page 5, Paragraph 38); and

Notifying the disk drive of a location of the mailbox file in the first range of addressable locations, wherein the disk drive can perform an

executable function characterized by contents of the mailbox file (Page 4,

Paragraph 36; and Page 5, Paragraph 38).

Regarding Claim 4,

Mankefors discloses, in a computer system including a host

computer, a disk drive host interface and a disk drive having a disk

controller, a method for accessing a mailbox file associated with a first

range of disk drive host interface addressable locations, the method

comprising the steps of:

Recognizing a command from a host operating system in reference

to the mailbox file (attempt execution of the software) associated with the

first range of disk drive host interface addressable locations (Page 5,

Paragraphs 42-43); and

Responding to the command by performing within the disk

controller an executable function characterized by the contents of the

mailbox file (Page 5, Paragraphs 42-43).

Regarding Claim 5,

Mankefors discloses that the first range of disk drive host interface

addressable locations refers to a storage space allocated in at least one of

a disk storage medium and a computer memory associated with the disk

controller (Page 4, Paragraph 36; and Page 5, Paragraph 42).

5.   Claims 4 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by

Lettvin (U.S. Patent 5,559,960).

Regarding Claim 4,

Lettvin discloses, in a computer system including a host computer,

a disk drive host interface and a disk drive having a disk controller, a

method for accessing a mailbox file associated with a first range of disk

drive host interface addressable locations, the method comprising the

steps of:

Recognizing a command from a host operating system in reference

to the mailbox file (application program) associated with the first range of

disk drive host interface addressable locations (Column 4, line 64 to

Column 5, line 9); and

Responding to the command by performing within the disk

controller an executable function characterized by the contents of the

mailbox file (Column 4, line 64 to Column 5, line 9). This executable

function is the accessing of the hidden partition, and subsequent

transferring of the anti-virus, disk-maintenance, and/or other software, that

the host OS cannot access, to the host.

Regarding Claim 5,

Lettvin discloses that the first range of disk drive host interface

addressable locations refers to a storage space allocated in at least one of

a disk storage medium and a computer memory associated with the disk

controller (Column 4, line 64 to Column 5, line 9).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Mankefors in view of Vogt (U.S. Patent 6,681,304).

Regarding Claim 2,

Mankefors does not disclose that the function is used to access a

second range of addressable locations that are not disk drive host

interface addressable and that are contained on the disk storage medium.

Vogt, however, discloses that the function is used to access a

second range of addressable locations that are not disk drive host

interface addressable and that are contained on the disk storage medium

(Column 3, lines 33-42). It would have been obvious to one of ordinary

skill in the art at the time of applicant's invention to incorporate the hidden

storage system of Vogt into the software protection system of Mankefors

in order to only allow access to private information when an appropriate

password (key) is entered, so as to hide this information from malicious users and programs.

Regarding Claim 3,

Mankefors as modified by Vogt discloses the method of claim 2, in addition, Mankefors discloses that the access key is required in order to run the specific software (Page 6, Paragraph 50) and Vogt discloses that the access key is required for an application program to access the second range of addressable locations (Column 3, lines 33-42).

7.   Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Torrubia-Saez (U.S. Patent 6,966,002) in view of Assaf (U.S. Patent 6,728,830).

Regarding Claim 1,

Torrubia-Saez discloses, in a computer system including a host computer, a disk drive host interface and a disk drive having a disk storage medium with a first range of disk drive host interface addressable locations, a method for installing a mailbox file associated with the disk storage medium, the installation method comprising the steps of:

Obtaining a disk drive access key from an access key server, the access key being generated by the access key server as a function of an identifying characteristic of the disk drive (Column 18, lines 22-57);

Creating a mailbox file in the first range of addressable locations

using the access key obtained from the access key server (Column 7,

lines 28-48; and Column 18, lines 40-57); and

Notifying the disk drive of a location of the mailbox file in the first

range of addressable locations (Column 17, lines 25-63).

Assaf, however, discloses that the disk drive can perform an

executable function characterized by the contents of the mailbox file

(Column 6, lines 51-60). When the mailbox file is stored, the disk drive

controller will scan it for viruses, using virus scan or detection software

stored within the hidden partition. It would have been obvious to one of

ordinary skill in the art at the time of applicant's invention to incorporate

the reserve/hidden disk partition of Assaf into the secure software

distribution system of Torrubia-Saez in order to allow the disk drive to

store critical information needed for proper operation of the disk drive in an

area to which the host OS and user cannot access, so that the information

cannot be inadvertently erased, thereby preventing partial or complete

incapacitation of the disk drive (Column 2, lines 5-23).

Regarding Claim 2,

Torrubia-Saez as modified by Assaf discloses the method of claim

1, in addition, Assaf discloses that the function is used to access a second

range of addressable locations that are not disk drive host interface

addressable and that are contained on the disk storage medium (Column 6, lines 51-60).

Regarding Claim 3,

Torrubia-Saez as modified by Assaf discloses the method of claim 2, in addition, Torrubia-Saez discloses that the access key is required for an application program to access the second range of addressable locations via the mailbox file (Column 7, lines 28-48; and Column 18, lines 40-57).

8.   Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mankefors in view of Torrubia-Saez.

Mankefors does not disclose that the mailbox file contains encrypted information.

Torrubia-Saez, however, discloses that a file contains encrypted information (Column 7, lines 28-48; and Column 18, lines 40-57). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the file encryption system of Torrubia-Saez into the software protection system of Mankefors in order to protect the data so that only an entity with the required decryption key and/or decryption executable can access the file, thus preventing the file from being accessed by an unauthorized entity.

9.   Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lettvin in

view of Torrubia-Saez.

Lettvin does not disclose that the mailbox file contains encrypted

information.

Torrubia-Saez, however, discloses that a file contains encrypted

information (Column 7, lines 28-48; and Column 18, lines 40-57). It would have

been obvious to one of ordinary skill in the art at the time of applicant's invention

to incorporate the file encryption system of Torrubia-Saez into the software anti-

virus facility of Lettvin in order to protect the data so that only an entity with the

required decryption key and/or decryption executable can access the file, thus

preventing the file from being accessed by an unauthorized entity.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Jeffrey D. Popham whose telephone number is (571)-

272-7215. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Emmanuel Moise can be reached on (571)272-3865. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Jeffrey D Popham
Examiner
Art Unit 2137

EMMANUEL L. MOISE
SUPERVISORY PATENT EXAMINER